DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed on July 22nd, 2008 has been entered. Claims 1 and 10 have been amended. Claims 1-10 are still pending in the application.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1-5, 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daniele et al. (EP 0843499 A2) in view of Henrlon et al. (EP 0977405 A1).

Daniele et al. discloses a communication system for the management of resources in ATM technique for WFQ application with the following features: regarding claim 1, defining a guaranteed bandwidth for the transmission of packets of one of the traffic streams over the transmission channel with which is a minimum bandwidth used to transmit packets of the traffic stream over the transmission channel (Fig. 1, structure of the weighted fair queuing WFQ system with control block for transmission of queues, see "all the queues are correctly served with at least the guaranteed minimum bandwidth" recited in column 8 lines 2-6), defining a maximum bandwidth for the transmission of packets of the traffic stream over the transmission channel (Fig. 1, structure of the weighted fair queuing WFQ system with control block for transmission of queues, see "system guarantees the maximum bandwidth to incoming flow with different QoS " recited in column 4 lines 55-58 and column 5 lines 1-4), with which the packets of the traffic stream will be transmitted over the transmission channel, where packets of the traffic stream which come into a buffer with a transmission rate lying below the guaranteed bandwidth for the traffic stream in the common transmission channel, are timed for transmission over the transmission channel before the packets of the traffic stream which come into the buffer with a transmission rate lying above the guaranteed bandwidth (Fig. 1, structure of the weighted fair queuing WFQ system with control block for transmission of queues, see "sorter device checks if the FIFO guaranteed bandwidth buffer still contains the pointer for transmission queues, SCB transmits first" recited in column 6 lines 26-38), wherein packets of the traffic stream which come into a buffer with a transmission rate lying below the maximum bandwidth

for the traffic stream in the transmission channel are timed for transmission over the transmission channel before the packets of the traffic stream which have arrived in the buffer with a transmission rate lying above the maximum bandwidth of the traffic channel in the transmission channel (Fig. 1, structure of the weighted fair queuing WFQ system with control block for transmission of queues, see "sorter device checks if the FIFO available bandwidth buffer still contains the pointer for transmission queues, SCB transmits " recited in column 6 lines 17-25); regarding clam 2, wherein, if the transmission channel is occupied by a number of traffic streams, each with a guaranteed bandwidth, a further traffic stream for transmission over the common transmission channel will be allowed if a sum of the guaranteed bandwidths and the requested bandwidth of the further traffic stream is a maximum of equal to a product of a pre-specified quality constant with which an overall traffic channel bandwidth available to the transmission channel (Fig. 1, structure of the weighted fair queuing WFQ system with control block for transmission of queues, see "stream with different QoS levels guarantees for maximum bandwidth if requirement of agreed bandwidth of n transmission and fixed m transmission flow is less than or equal to the total bandwidth of the common channel" recited in column 6 lines 47-58 and column 5 lines 1-14); regarding claim 3, wherein, the constant is equal to one (Fig. 1, structure of the weighted fair queuing WFQ system with control block for transmission of queues, see "stream with different QoS levels guarantees for maximum bandwidth if requirement of agreed bandwidth of n transmission and fixed m transmission flow is equal to constant one" recited in column 6 lines 47-58 and column 5 lines 1-14); regarding claim 4,

wherein the constant is greater than one (Fig. 1, structure of the weighted fair queuing WFQ system with control block for transmission of queues, see "stream with different QoS levels not guaranteed for maximum bandwidth if requirement of agreed bandwidth of n transmission and fixed m transmission flow is greater than constant one" recited in column 6 lines 47-58 and column 5 lines 1-14); regarding claim 5, wherein, the constant is less than one (Fig. 1, structure of the weighted fair queuing WFQ system with control block for transmission of queues, see "stream with different QoS levels guarantees for maximum bandwidth if requirement of agreed bandwidth of n transmission and fixed m transmission flow is less than the total bandwidth of the common channel" recited in column 6 lines 47-58 and column 5 lines 1-14) and regarding claim 10, defining a guaranteed bandwidth for the transmission of packets of one of the traffic streams over the transmission channel with which is a minimum bandwidth used to transmit packets of the traffic stream over the transmission channel (Fig. 1, structure of the weighted fair queuing WFQ system with control block for transmission of queues, see "all the queues are correctly served with at least the guaranteed minimum bandwidth" recited in column 8 lines 2-6), defining a maximum bandwidth for the transmission of packets of the traffic stream over the transmission channel (Fig. 1, structure of the weighted fair queuing WFQ system with control block for transmission of queues, see "system guarantees the maximum bandwidth to incoming flow with different QoS " recited in column 4 lines 55-58 and column 5 lines 1-4) with which the packets of the traffic stream will be transmitted over the transmission channel, where packets of the traffic stream which come into a buffer with a transmission rate lying below the guaranteed bandwidth for the

traffic stream in the common transmission channel, are timed for transmission over the transmission channel before the packets of the traffic stream which come into the buffer with a transmission rate lying above the guaranteed bandwidth (Fig. 1, structure of the weighted fair queuing WFQ system with control block for transmission of queues, see "sorter device checks if the FIFO guaranteed bandwidth buffer still contains the pointer for transmission queues, SCB transmits first" recited in column 6 lines 26-38), wherein packets of the traffic stream which come into a buffer with a transmission rate lying below the maximum bandwidth for the traffic stream in the transmission channel are times for transmission over the transmission channel before the packets of the traffic stream which have arrived in the buffer with a transmission rate lying above the maximum bandwidth of the traffic channel in the transmission channel (Fig. 1, structure of the weighted fair queuing WFQ system with control block for transmission of queues, see "sorter device checks if the FIFO available bandwidth buffer still contains the pointer for transmission queues, SCB transmits " recited in column 6 lines 17-25).

Daniele et al. does not disclose the following features: regarding claim 1, a method for transmission of traffic streams over a common transmission channels and of which data comes into a buffer connected upstream of the transmission channels comprising; regarding claim 8, wherein, timing priority of a packet to be transmitted over the common transmission channel before other packets is stored in a header of the packet and regarding claim 10, a device for transmitting traffic streams over a common transmission channel, wherein data comes into a buffer connected upstream of the transmission channel, the device performing the steps comprising.

Henrlon et al discloses a communication system for sharing available bandwidth with scheduler and intelligent buffer with the following features: regarding claim 1, a method for transmission of traffic streams over a common transmission channels (Fig.1, communication system with scheduler provided in ATM switch, see "plurality of data flow in a communication network via the common link" recited in paragraph 0003 lines 1-2), of which data comes into a buffer connected upstream of the transmission channels comprising (Fig.1, communication system with scheduler included in ATM switch, see "data packet comes into the buffer coupled to the processor" recited in paragraph 0019 lines 1-6); regarding claim 8, wherein, timing priority of a packet to be transmitted over the common transmission channel before other packets is stored in a header of the packet (Fig.1, communication system with scheduler included in ATM switch, see "packets enter the scheduler at the input of the buffer according to the identification of the data flow " recited in paragraph 0056 lines 1-5) and regarding claim 10, a device for transmitting traffic streams over a common transmission channel (Fig.1, communication system with scheduler provided in ATM switch, see "plurality of data flow in a communication network via the common link" recited in paragraph 0003 lines 1-2) and wherein data comes into a buffer connected upstream of the transmission channel, the device performing the steps comprising (Fig.1, communication system with scheduler included in ATM switch, see "data packet comes into the buffer coupled to the processor" recited in paragraph 0019 lines 1-6).

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the system of Daniele et al. by using the features as taught by

Henrlon et al. in order to provide a transmission of traffic streams over a common transmission channels and of which data comes into a buffer connected upstream of the transmission channels. The motivation of using this method is to enhance the function of the system in a cost effective manner.

4. Claim 6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daniele et al. (EP 0843499 A2) in view of Henrlon et al. (EP 0977405 A1) as applied to claim 1 above, and further in view of Dolgonos et al. (US 2002/0147978 A1).

Daniele et al. and Henrlon et al. disclose the claimed limitations as described in paragraph 8 above. Daniele et al. and Henrlon et al. do not disclose the following features: regarding claim 6, wherein the traffic channel is a mobile radio channel for payload data and regarding claim 9, wherein more than 1000 traffic channels run over the transmission channel.

Dolgonos et al. disclose a hybrid cable/wireless communication system for high speed mobile data transfer with the following features: regarding claim 6, wherein the traffic channel is a mobile radio channel for payload data (Fig .1, a hybrid cable/wireless communications system, see “wireless or radio channels can be used as downstream channel” recited in paragraph 0007 lines 1-11) and regarding claim 9, wherein more than 1000 traffic channels run over the transmission channel (Fig .1, a hybrid cable/wireless communications system, see “multi-channel multi-point distribution with frequency allocation 2680-2686 MHz” recited in paragraph 0028 lines 21-30).

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the system of Daniele et al. with Henrlon et al. by using the features, as taught by Dolgonos et al. in order to provide the traffic channel as a mobile radio channel for payload data. The motivation of using this method is to enhance the function of the system in a cost effective manner.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Daniele et al. (EP 0843499 A2) in view of Henrlon et al. (EP 0977405 A1) as applied to claim 1 above, and further in view of Ellenby et al. (US 7,031,875 B2).

Daniele et al. and Henrlon et al. disclose the claimed limitations as described in paragraph 8 above. Daniele et al. and Henrlon et al. do not disclose the following features: regarding claim 7, wherein the traffic channel passes through a UMTS GATEWAY.

Ellenby et al. discloses a positioning system for addressing objects with the following features: regarding claim 7, wherein the traffic channel passes through a UMTS GATEWAY (Fig. 1, system architecture with elements of overall system, see "UMTS enables network to offer voice, data and multimedia with high data rate" recited in column 13 lines 10-24).

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the system of Daniele et al. with Henrlon et al. by using the features, as taught by Ellenby et al. in order to provide the UMTS GATEWAY as traffic channel to

pass through. The motivation of using this method is to enhance the function of the system in a cost effective manner.

Response to Arguments

6. Applicant's arguments filed July 22nd, 2008 have been fully considered but they are not persuasive. Applicant states in the remarks regarding claim 1, "where packets of the traffic stream which come into a buffer with a transmission rate lying below the guaranteed bandwidth for the traffic stream in the common transmission channel, are timed for transmission over the transmission channel before the packets of the traffic stream which come into the buffer with a transmission rate lying above the guaranteed bandwidth. Applicants respectfully disagree. Daniele has multiple transmission queues, a control block and high (FGB) and low (FAB) priority storage structure. In this instance, the RT_EMPTY flag indicates that there are no cells belonging to a real-time flows to be transmitted, and the FIFO FGB is checked. If the FIFO FGB contains pointers to transmission queues, the SCB block moves to the next step. During this step, the SC block serves the queue currently pointed by the FIFO FGB, decreases the corresponding number of tokens stored in the TIK_COUNTER device by one unit, and removes its pointer from the FIFO FGB. However, there is no determination in this step as to whether the transmission rate lies below or above the guaranteed bandwidth, much less transmitting the rate that is below, as required by the claimed invention". Examiner respectfully disagrees. Daniele teaches the claimed limitations (see column 6 lines 26-38). Applicant further states "wherein packets of the traffic stream which come into a buffer with a transmission rate lying below the maximum bandwidth for the traffic

stream in the transmission channel are times for transmission over the transmission channel before the packets of the traffic stream which have arrived in the buffer with a transmission rate lying above the maximum bandwidth of the traffic channel in the transmission channel. Applicants respectfully disagree. In this section of the applied reference, if the renewal period TR is not yet terminated, the SCB block moves to a SERVICE RT step, in which the SCB block serves the QNA queue containing the cells belonging to the non-ABR flows. However, there is no determination in this step as to whether the transmission rate lies below or above the maximum bandwidth, much less transmitting the rate that is below, as required by the claimed invention". Examiner respectfully disagrees. Daniele teaches the claimed limitations (see column 6 lines 17-25).

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SYED BOKHARI whose telephone number is (571)270-3115. The examiner can normally be reached on Monday through Friday 8:00-17:00 Hrs..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang B. Yao can be reached on (571) 272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Syed Bokhari/

Examiner, Art Unit 2416

10/6/2008

/Kwang B. Yao/

Supervisory Patent Examiner, Art Unit 2416